Viet

L1: Entry 1 of 2 File: USPT Jan 8, 2002

US-PAT-NO: 6338046
DOCUMENT-IDENTIFIER: US 6338046 B1

TITLE: System and method for determining charges for usage of a network connection

DATE-ISSUED: January 8, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Saari; Jarmo Ilkka	Jyvaskyla			FI
Taskinen; Timo Ilmari	Aanekoski			FI
Kilkki; Matti Kalevi	Espoo			FI

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Nokia Telecommunications, Oy	Espoo			FI	03

APPL-NO: 08/ 944390 [PALM]
DATE FILED: October 6, 1997

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/34; 705/400, 379/114, 379/115, 379/117, 379/124
US-CL-CURRENT: 705/34; 379/115.01, 379/117, 379/124, 705/400

FIELD-OF-SEARCH: 705/34, 705/400, 379/114, 379/115, 379/117, 379/124, 379/13, 379/120, 395/200.3, 395/200.31, 395/200.32, 395/200.47, 395/200.54, 370/238, 370/252, 370/253, 370/389, 709/253, 709/254

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4868758	September 1989	Kokubu	705/400
☐	5430794	July 1995	Ayame	379/114
☐	5444713	August 1995	Backaus et al.	370/524
☐	5481534	January 1996	Beachy et al.	370/259
☐	5600643	February 1997	Robrock, II	370/259

☐	5623405	April 1997	Isono	705/30
☐	5694459	December 1997	Backaus et al.	370/524
☐	5751799	May 1998	Mori	379/114
☐	5894475	April 1999	Bruno et al.	370/389
☐	5943320	August 1999	Weik et al.	370/359

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 97/26739	July 1997	WO	

OTHER PUBLICATIONS

Integrated Services Digital Network (ISDN) Overall Network Aspects and Functions, Traffic Control and Congestion Control in B-ISDN, ITU-T Recommendation I.371, pp. 1-27 (Mar. 1993).
"What are the meaning of CBR, VBR, ABR, UBR?", http://cell-relay.indiana.edu/cell-relay/FAQ/ATM-FAQ/d/d19.html, maintained by Carl Symborski, last changed Aug. 20, 1996, pp. 1-2 (undated Feb. 6, 1997)).
"ATM Lecture",
http://syllabus.syr.edu/1st/Mweschen/1st656/Week4/lecture/atm/atm.html, pp. 1-5 (updated Feb. 6, 1997).
Livio Lambarelli, CSELT (editor), "ATM Service Categories: The Benefits to the User," http://www.atmforum.com/atmforum/service categories.html, Torino, Italy, pp. 1-10 (updated Jan. 29, 1997).
Gary Kessler, "An Overview of ATM Technology,"Jan. 1995,
http://www.hill.com/personnel/gck/atm overview.html, pp. 1-10 (updated Feb. 13, 1997).
Engui Yao, "ATM--The New Technology for tommorrow's B-ISDN," Dec. 1994,
http://www2.msstate.edu/.about.ey1/paper/tkt8793paper.html, pp. 1-23 (updated Oct. 30, 1996).
Dean, Phil, "Integrated Private Networks of the 1990s", Telecommunications (International Edition), vol. 26, No. 1, Jan. 1992.

ART-UNIT: 2761

PRIMARY-EXAMINER: Voeltz; Emanuel Todd

ASSISTANT-EXAMINER: Hayes; John

ATTY-AGENT-FIRM: Altera Law Group, LLC

ABSTRACT:

A system and method for determining charges for use of network service connections. The network includes nodes which facilitate the transfer of information between source and destination locations. When a connection is established with a node, a billing cell is transmitted to the node over the connection which contains billing and connection information. Data cells are transmitted over the same connection subsequent to the billing cell. A terminate billing cell or conventional means may be used to drop the connection when the connection is no longer needed. The node computes the cost of using the connection based on the billing and connection information copied from the billing cell, and may also consider the connection time and the amount of data transferred over the connection. Upon establishing a

subsequent connection with another node, the previous node transmits the billing cell to the new node which copies the billing cell content and, after receiving the data cells over the new connection, performs similar connection usage computations. This process is repeated by each of the nodes involved in the transfer of information between the source and destination. The nodes transmit their respective charging information to a network billing system which generates a final bill that is forwarded to the user. The billing cell may be transmitted from the destination back to the source to verify proper operation of the billing procedure. Fixed rate and variable rate billing schemes may be implemented and augmented as needed by each network operator.

29 Claims, 22 Drawing figures

Previous Doc Next Doc Go to Doc#

First Hit Fwd Refs Previous Doc Next Doc Go to Doc#
End of Result Set

Generate Collection Print

L1: Entry 2 of 2 File: USPT Oct 4, 1988

US-PAT-NO: 4776004
DOCUMENT-IDENTIFIER: US 4776004 A

TITLE: Communication services method and apparatus

DATE-ISSUED: October 4, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bauer; Thomas M.	Bellemead	NJ		
Dunn; Thomas A.	Edison	NJ		
Richardson; Ross M.	Sea Bright	NJ		
Tam; Chun P.	Naperville	IL		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
American Telephone and Telegraph Company, AT&T Bell Laboratories	Murray Hill	NJ			02

APPL-NO: 07/ 025601 [PALM]
DATE FILED: March 13, 1987

INT-CL: [04] H04M 3/42, H04M 15/12

US-CL-ISSUED: 379/127; 379/223
US-CL-CURRENT: 379/127.01; 379/223

FIELD-OF-SEARCH: 379/127, 379/139, 379/134, 379/113, 379/114, 379/123, 379/223

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4054756	October 1977	Comella et al.	379/223

OTHER PUBLICATIONS

"MCI Prism II", MCI Telecommunication Corporation, 1986.

"ITT Longer Distance Account Code Feature Guide", United States Transmission Systems, Incorporated, (publication date unavailable).
"Alpha 1", STARNET Corporation, (publication date unavailable).

ART-UNIT: 261

PRIMARY-EXAMINER: Schreyer; Stafford D.

ATTY-AGENT-FIRM: Godlewski; Richard J.

ABSTRACT:

Apparatus and method are disclosed for providing a non-presubscription subaccount billing service utilized by customers on a "per call" or "as needed" basis. A calling customer initiates the service by dialing "0" plus the directory number of the called line. The local office serving the calling line recognizes the call as an operator-designated call and forwards the call along with the identification number of the calling line and the directory number of the called line to an operator system. The operator system prompts the calling line to enter additional call information. The calling customer enters a service activation code such as "15" and a two-digit subaccount billing number assigned by the customer. Receiving the service activation code and the subaccount billing number, the operator system activates the service by setting a subaccount billing indicator in an automatic message accounting record and extends the call to the called line. Upon completion of the call, the operator system includes the connect time, elapsed time, calling line identification number, called line directory number, and subaccount billing number for the call into the AMA record. The record along with others is forwarded to a revenue accounting office where a billing system sorts the AMA records by subaccount billing numbers and prepares a billing statement with the details of each call listed for each subaccount billing number assigned by the customer.

29 Claims, 7 Drawing figures

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#
End of Result Set

Generate Collection Print

L10: Entry 2 of 2 File: PGPB Mar 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020029280
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020029280 A1

TITLE: Mixed enclave operation in a computer network

PUBLICATION-DATE: March 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Holden, James M.	Valley Center	CA	US	
Levin, Stephen E.	poway	CA	US	
Snow, David W.	Convent Station	NJ	US	
Wrench, Edwin H.	San Diego	CA	US	

APPL-NO: 09/ 925079 [PALM]
DATE FILED: August 7, 2001

RELATED-US-APPL-DATA:
Application 09/925079 is a continuation-of US application 09/127280, filed July 31, 1998, US Patent No. 6272538
Application 09/127280 is a continuation-in-part-of US application 08/688543, filed July 30, 1996, US Patent No. 5832228
Application 08/688543 is a continuation-in-part-of US application 08/688524, filed July 30, 1996, US Patent No. 5828832

INT-CL: [07] G06 F 15/16

US-CL-PUBLISHED: 709/229; 709/223, 709/225, 709/227, 709/250, 713/201
US-CL-CURRENT: 709/229; 709/223, 709/225, 709/227, 709/250, 713/201

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

A method is disclosed for mixed enclave operation of a computer network with users employing a multi-level network security interface and users without any network security interface. Either the network security user selects or the network security interface automatically selects whether communications are permissible with other unsecured users. Where a mixed enclave operation is selected, the network security user identifies when communications are being undertaken with another secured user or a non-secured user. Communications with a non-secured user at a lower security level entail securing the data residing with the secured user from transmission back to the non-secured user.

RELATED APPLICATIONS

[0001] The present application is a continuation-in-part of U.S. application Ser. No. 08/688,524 to Holden et al., entitled MIXED ENCLAVE OPERATION IN A COMPUTER NETWORK WITH MULTI-LEVEL NETWORK SECURITY, filed Jul. 30, 1996; and related to U.S. Pat. No. 5,577,209, entitled APPARATUS AND METHOD FOR PROVIDING MULTI-LEVEL SECURITY FOR COMMUNICATION AMONG COMPUTERS AND TERMINALS ON A NETWORK, issued to Boyle et al, Nov. 19, 1996.

Previous Doc Next Doc Go to Doc#

L27: Entry 1 of 2 File: USPT Sep 14, 1999

US-PAT-NO: 5953389
DOCUMENT-IDENTIFIER: US 5953389 A

TITLE: Combination system for provisioning and maintaining telephone network facilities in a public switched telephone network

DATE-ISSUED: September 14, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pruett; Richard O.	Herndon	VA		
Casey; William C.	Chantilly	VA		
Harper; Myron E.	Burtonsville	MD		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Bell Atlantic Network Services, Inc.	Arlington	VA			02

APPL-NO: 08/ 803113 [PALM]
DATE FILED: February 20, 1997

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part application of application Ser. No. 08/376,201, filed Jan. 20, 1995 now U.S. Pat. No. 5,491,742, application Ser. No. 08/152,360, filed Nov. 16, 1993 now U.S. Pat. No. 5,416,833, application Ser. No. 08/467,646, filed Jun. 6, 1995, now U.S. Pat. No. 5,644,619, application Ser. No. 08/506,655, filed Jul. 25, 1995, now U.S. Pat. No. 5,790,633, application Ser. No. 08/551,622, filed Nov. 1, 1995, now U.S. Pat. No. 5,687,212, and application Ser. No. 08/757,682, filed Nov. 29, 1996, now U.S. Pat. No. 5,790,634 all of which are incorporated herein by reference.

INT-CL: [06] H04 M 1/24

US-CL-ISSUED: 379/9; 379/29, 379/10, 379/15, 379/34
US-CL-CURRENT: 379/9; 379/15.02, 379/15.03, 379/9.02, 379/9.03

FIELD-OF-SEARCH: 379/1, 379/2, 379/5, 379/9-17, 379/27-28, 379/29-30, 379/34, 370/241-242, 370/248, 370/250, 370/251, 370/261, 371/4, 371/11.2, 371/11.3, 371/20.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4232199	November 1980	Boatwright et al.	
☐	4574167	March 1986	Olek	
☐	4782517	November 1988	Bernardis et al.	
☐	4782519	November 1988	Patel et al.	
☐	4922514	May 1990	Bergeron et al.	
☐	4972453	November 1990	Daniel, III et al.	
☐	4991105	February 1991	Pimental	
☐	5012511	April 1991	Hanle et al.	
☐	5054050	October 1991	Burke et al.	
☐	5067099	November 1991	McCown et al.	
☐	5086461	February 1992	Thorn et al.	
☐	5099436	March 1992	McCowen et al.	
☐	5121420	June 1992	Marr et al.	
☐	5195124	March 1993	Ishioka	
☐	5222125	June 1993	Creswell et al.	
☐	5224149	June 1993	Garcia	
☐	5247571	September 1993	Kay et al.	
☐	5343461	August 1994	Barton et al.	
☐	5347564	September 1994	Davis et al.	
☐	5359646	October 1994	Johnson et al.	
☐	5375159	December 1994	Williams	
☐	5388189	February 1995	Kung	
☐	5392328	February 1995	Schmidt et al.	
☐	5404389	April 1995	Fukuda et al.	
☐	5416833	May 1995	Harper et al.	
☐	5438606	August 1995	Cerulli	
☐	5465294	November 1995	Chapman, Jr. et al.	
☐	5473679	December 1995	La Porta et al.	
☐	5491742	February 1996	Harper et al.	
☐	5509060	April 1996	Hall et al.	
☐	5528677	June 1996	Butler et al.	
☐	5644619	July 1997	Farris et al.	
☐	5790633	August 1998	Kinser et al.	379/29

ART-UNIT: 273

PRIMARY-EXAMINER: Kuntz; Curtis A.

ASSISTANT-EXAMINER: Nguyen; Duc

ATTY-AGENT-FIRM: McDermott, Will & Emery

ABSTRACT:

In an administration system for a public switched telephone network, a method of provisioning and maintaining the working status of customer network facilities is provided. The method includes the steps of receiving a service request from a customer at a living unit requesting service, and determining whether the service request from the living unit is eligible for processing by the adjunct processor. When the service request is eligible, the method automatically provisions customer equipment to execute the service request based upon information including customer identification data and customer facilities. The information is generally maintained without altering the customer facilities when a subsequent disconnect request is received from the customer. The method also includes one or more of receiving a customer request, retrieving related customer profile information, obtaining a description of the customer trouble and entering a trouble type associated therewith, building a trouble report, testing the communication line and generating test results. The method also includes the steps of grouping related open work requests and proactively determined troubles with the trouble report based on grouping rules, and building a work load for a technician.

28 Claims, 37 Drawing figures

Previous Doc Next Doc Go to Doc#

L30: Entry 1 of 2 File: USPT Sep 14, 1999

DOCUMENT-IDENTIFIER: US 5953389 A
TITLE: Combination system for provisioning and maintaining telephone network facilities in a public switched telephone network

Detailed Description Text (68):
The Field Technician determines any related trouble reports stored in Dispatch. The Field Technician or the Caseworker closes out the Trouble Report by entering the trouble found, work done and cause descriptions at P5a. The Disposition and Cause Codes are automatically generated based on the trouble found and cause descriptions entered by the Technician/Caseworker at P5b. The system clock automatically records the date and time of the trouble clearance. If applicable, Time and Material charges are generated automatically based on the "hours spent" and "materials used" entries made by the Field Technician at P5c. This close process is continued until all related trouble reports are closed as well.

Detailed Description Text (69):
Information recorded by the Caseworker or the Field Technician is automatically sent to other systems as needed. Time and Materials charges are sent to the Billing Function. Field Technician and Caseworker time and associated codes are forwarded to Payroll. Closed Trouble Report information including Disposition and Cause Codes, may also be forwarded to the Service Analysis System and other related operating systems.

Detailed Description Text (93):
FIG. 26 is a block diagram of a proactive service management process. In FIG. 26, Caseworker 308 is used for coordinating trouble reports received from MLT 314 (via standard interface Gateway 348) or Service Analysis system 346 via the reactive or proactive architectures. Depending on the trouble type, class of service and test results, the information collected by Caseworker 308 may lead to different resolutions of the trouble as discussed previously. In accordance with this management architecture, Caseworker 308 advantageously is able to access the different systems and related databases in the facility assignment system, such as SOP 106, SOAC 110, LFACS 112 and RTS 136. Caseworker 308 also has access to Billing Order Support System (BOSS) 354 used by Residence and Business Service Centers to assist service representatives with billing inquiries and services. BOSS provides, for example: 1) current monthly bill; 2) previous bill; 3) payments; 4) audit trail of account history (i.e., payment arrangements, discussions regarding service, record of contacts).

First Hit Fwd Refs Previous Doc Next Doc Go to Doc#

End of Result Set

Generate Collection Print

L27: Entry 2 of 2 File: USPT Feb 16, 1999

US-PAT-NO: 5873099
DOCUMENT-IDENTIFIER: US 5873099 A

TITLE: System and method for maintaining redundant databases

DATE-ISSUED: February 16, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hogan; Steven J.	Cedar Rapids	IA		
Feltz; Kristi T.	Cedar Rapids	IA		
Murdock; Douglas R.	Cedar Rapids	IA		
Goodman; Todd A.	Cedar Rapids	IA		
Vercande; David J.	Cedar Rapids	IA		
Tangeman; Michael R.	Cedar Rapids	IA		
Busch; Eric M.	Cedar Rapids	IA		
Kripakaran; Raghavan	Cedar Rapids	IA		
Jayasimha; Madhigubba G.	Cedar Rapids	IA		
Smith; Keith E.	Cedar Rapids	IA		
Austin; Mark A.	Cedar Rapids	IA		
Berry; Dana Bruce	Cedar Rapids	IA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
LinkUSA Corporation	Cedar Rapids	IA			02

APPL-NO: 08/ 421745 [PALM]
DATE FILED: April 13, 1995

PARENT-CASE:
This application is a division of application Ser. No. 08/136,211, filed Oct. 15, 1993, now issued U.S. Pat. No. 5,590,181.

INT-CL: [06] G06 F 17/30

US-CL-ISSUED: 707/204; 707/202, 395/182.04
US-CL-CURRENT: 707/204; 707/202, 714/6

FIELD-OF-SEARCH: 379/202, 379/220, 379/142, 379/207, 379/113, 379/67, 379/112, 379/115, 379/114, 395/444, 395/600, 395/182.09, 395/700, 395/800, 395/182.04, 235/383, 707/202, 707/204

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL | Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3568156	March 1971	Thompson	395/800
☐	4232199	November 1980	Boatwright et al.	179/18B
☐	4432057	February 1984	Daniell et al.	395/600
☐	4577061	March 1986	Katzeff et al.	179/2AM
☐	4611096	September 1986	Asmuth et al.	179/18B
☐	4625081	November 1986	Lotito et al.	379/88
☐	4685127	August 1987	Miller et al.	379/221
☐	4706275	November 1987	Kamil	379/144
☐	4757267	July 1988	Riskin	379/113
☐	4782519	November 1988	Patel et al.	379/221
☐	4791640	December 1988	Sand	370/58
☐	4809170	February 1989	Leblang et al.	395/700
☐	4853843	August 1989	Ecklund	395/600
☐	4882475	November 1989	Miller et al.	235/383
☐	4893330	January 1990	Franco	379/91
☐	5068891	November 1991	Marshall	379/91
☐	5136636	August 1992	Wegrzynowicz	379/207
☐	5195086	March 1993	Baumgartner et al.	370/62
☐	5222120	June 1993	McLeod et al.	379/91
☐	5311572	May 1994	Friedes et al.	379/67
☐	5341414	August 1994	Popke	379/142
☐	5379418	January 1995	Shimazaki et al.	395/182.09
☐	5404508	April 1995	Konrad et al.	395/600
☐	5440727	August 1995	Bhide et al.	395/444
☐	5506897	April 1996	Moore et al.	379/220
☐	5546449	August 1996	Hogan et al.	379/202
☐	5555290	September 1996	McLeod et al.	379/67
☐	5615364	March 1997	Marks et al.	707/202
☐	5638430	June 1997	Hogan et al.	379/112
☐	5649089	July 1997	Kilner et al.	395/182.04

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 91/16779	October 1991	WO	

OTHER PUBLICATIONS

Weinstein, Smart Credit Cards: The Answer To Cashless Shopping, IEEE Spectrum, Feb., 1984, pp. 43-49.
Briere, The Secret To Success With Virtual Nets, Network World, Mar. 1992, pp. 1, 31, 41-43.
Joneleit, Signaling System 7 Rescues Antiquated Billing System, Telephony, Dec., 1991, pp. 32, 34, and 36.
Product Information Brochure: Summa Architec Series Portico (SDS Product Overview), Summa Four Inc., Mar. 1992, selected pages.
Product Information Brochure: The Open Architecture Network Interface, Profit From Open Architecture, SDS Series, Data Unknown.
Product Information Brochure: DMS-250 Operator Services, Northern Telecom, Sep., 1987.

ART-UNIT: 271

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Rones; Charles L.

ATTY-AGENT-FIRM: Lyon & Lyon LLP

ABSTRACT:

A system and method for processing telephone calls and providing enhanced services is presented. The call processing system includes a network control processor for controlling the processing and routing of the calls and for providing enhanced features, and a matrix switch for routing calls from an originating location to a terminating location. Operator consoles can be included to provide operator assistance to the caller. The network control processor comprises a central message processor that receives call data, determines the type of call, determines the processing required, and determines whether operator assistance is required. A call route distributor allocates an operator console to the call if required. A billing server is used to track billing information for the call while it is in progress. A database server is provided for database look-ups and storage. The call processing system also includes a validation system, a billing system, a distribution system, and a fraud detection and prevention system. The validation system is used to validate call information to determine whether the call can be placed. The billing system determines rates for calls and calculates the cost of completed calls. The distribution system distributes changes that are made to a master database to the appropriate slave database. The fraud detection and prevention system monitors originating and in-process calls to detect and possibly prevent possible fraudulent uses of phone services and systems. A client interface is provided to facilitate communications among applications and DEF records are used to define specific call processing actions.

38 Claims, 209 Drawing figures

Previous Doc Next Doc Go to Doc#

L30: Entry 2 of 2 File: USPT Feb 16, 1999

DOCUMENT-IDENTIFIER: US 5873099 A
TITLE: System and method for maintaining redundant databases

Brief Summary Text (57):
When a call is received by the call processing system for routing, a billing information record (BIR) is generated for the call. Among other information, the BIR is updated with timing information such as when the call is completed to a VRU or to an operator console or when it is terminated. When the call is completed, the BIR is sent to the billing system so the cost of the call can be calculated. The billing system uses the time information to compute wholesale and retail call durations. The billing system uses other information contained in or derived from the BIR such as time of day and distance of the call to retrieve a rate for the call. The billing system calculates a cost for the call (wholesale and/or retail) using the appropriate rate and the call duration. If required, a tax for the call is computed and added to the cost of the call. The cost information is stored in a toll file from which bills can be generated and sent to the appropriate subscriber.

Detailed Description Text (212):
In the case where the communications protocols used by matrix switch AB106 and NCP AB104 are different, a host gateway BA110 is used to provide the necessary protocol conversions. In this case, host gateway BA110 constructs a SWITCH COMMAND MESSAGE BA316. In keeping with the current example, SWITCH COMMAND MESSAGE BA316 in one embodiment is an SS7 IAM, and call SETUP MESSAGE #2 BA314 is one or more LAN packets containing the SS7 instructions for switch. Thus, host gateway BA110 constructs and sends SWITCH COMMAND MESSAGE BA316 to matrix switch AB106. This occurs in a step BA216. SWITCH COMMAND MESSAGE BA316 commands matrix switch AB106 to connect the call audio AA142 portion of the call to the operator console AB108 assigned by CRD BA106 in steps BA210 and BA212.

Detailed Description Text (888):
The billing number for each call is used by the fraud system PB102 to identify the call. This data is provided to a billing number usage file module PA112 (BNUFILE). PA112 creates a BNU record for each billed number. A representative BNU record for an ANI showing the data field is found in Fraud FIG. 179. It includes, for example, the billing number, the billing method, current uses, and a list of the last `N` attempts of calls (including time, ANI, call information, and the like). If a billed number is not used for a particular time period, such as between 30 and 45 days, the billed number is deleted from the system so as to reallocate storage space in the database file PA138. Database file PA138 receives the data from a data via PA136. This database uses a billed number search strategy.

Detailed Description Text (959):
If the number `A` of calls that have occurred within the time period `Y` is less than the threshold value `Z` provided by step PR102 for the particular billing number, then this fraud scenario determines that the high usage condition has not occurred, as indicated by the NO flow line PR108. The fraud scenario then updates

the BNU record file PO450 to indicate this completed call. This is indicated by DONE block PR110.

Detailed Description Text (1252):
In a step YC218, calling time is calculated based on rating information associated with the card. If the card is flat-rated, the remaining time is calculated against the remaining dollar balance on the card. If the card rates are based on call distance and/or time of day the system obtains a rate quote from Billing System AG102 as discussed above in the Billing System Section of this document, and calculates the remaining time. Debit card features can be customized for each carrier AA110 or for each individual user AA106A. The customization can be down to the card level. Debit card calling can be based on a flat rate or based on mileage and/or time of day in increments specified by subscriber AA114. The customization can be based on call parameters BA308 and/or the manner in which DEF records are implemented for each originating user AA106A or customer AA110. DEF records are completely described in the DEF Section of this document.

Previous Doc Next Doc Go to Doc#

10/024734

L4: Entry 1 of 1 File: USPT Feb 19, 2002

US-PAT-NO: 6349289
DOCUMENT-IDENTIFIER: US 6349289 B1

TITLE: Method and system for tracking computer system usage through a remote access security device

DATE-ISSUED: February 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peterson; Bruce Lee	Crystal Lake	IL		
Clayton; Christina Ellen	Chicago	IL		
Farmer; Michael Stephan	Wildwood	MO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ameritech Corporation	Hoffman Estates	IL			02

APPL-NO: 09/ 008344 [PALM]
DATE FILED: January 16, 1998

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/34; 705/26, 705/30, 705/40, 709/227
US-CL-CURRENT: 705/34; 705/26, 705/30, 705/40, 709/227 ✓

FIELD-OF-SEARCH: 705/34, 705/26, 705/27, 705/30, 705/40, 358/400, 379/114.1, 379/112.1, 709/227

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3798605	March 1974	Feistel	
☐	4672572	June 1987	Alsberg	
☐	4800590	January 1989	Vaughan	
☐	4944007	July 1990	Austin	
☐	5003584	March 1991	Benyacar et al.	

☐	5068894	November 1991	Hoppe	
☐	5113499	May 1992	Ankney et al.	
☐	5115466	May 1992	Presttum	
☐	5120939	June 1992	Claus et al.	
☐	5196840	March 1993	Leith et al.	
☐	5216703	June 1993	Ray	
☐	5276444	January 1994	McNair	
☐	5291551	March 1994	Conn et al.	
☐	5317636	May 1994	Vizcaino	
☐	5361062	November 1994	Weiss et al.	
☐	5392345	February 1995	Otto	
☐	5412723	May 1995	Canetti et al.	
☐	5481613	January 1996	Ford et al.	
☐	5534857	July 1996	Laing et al.	
☐	5535276	July 1996	Ganesan	
☐	5546379	August 1996	Thaweethai et al.	370/254
☐	5553239	September 1996	Heath et al.	
☐	5560008	September 1996	Johnson et al.	
☐	5586260	December 1996	Hu	
☐	5606617	February 1997	Brands	
☐	5661807	August 1997	Guski et al.	
☐	5740361	April 1998	Brown	713/201
☐	5778071	July 1998	Caputo et al.	713/159
☐	5790548	August 1998	Sistanizadeh et al.	370/401
☐	5862203	January 1999	Wulkan et al.	379/114
☐	5867494	February 1999	Krishnaswamy et al.	
☐	5867495	February 1999	Elliott et al.	370/352
☐	5887065	March 1999	Audebert	
☐	5893077	April 1999	Griffin	705/34
☐	5907610	May 1999	Onweller	379/242

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
558326	September 1993	EP	
2271696	April 1996	GB	
05118861	May 1993	JP	
WO 8302343	July 1983	WO	
WO 9946691	September 1999	WO	

OTHER PUBLICATIONS

Hewlett-Packard, Accounting System Planning and Billing, Aug., 1992, 1-4.

ART-UNIT: 2765

PRIMARY-EXAMINER: Nguyen; Cuong H.

ATTY-AGENT-FIRM: Brinks Hofer Gilson & Lione

ABSTRACT:

A system and method for monitoring remote computer access and associated costs is provided. The system includes a remotely located communication server in communication with multiple host computer networks and in communication with a network access server. First and second memory devices contain a list of authorized users for the host computer networks and a user log for use by a billing computer to generate bills. The method includes the steps of creating starting and ending time stamps for each authorized user accessing a respective one of the multiple host computer networks and creating a user log to generate bills and monitor host computer network usage.

13 Claims, 2 Drawing figures

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#

Generate Collection Print

L10: Entry 1 of 2 File: PGPB Jan 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040019683
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040019683 A1

TITLE: Protocol independent communication system for mobile devices

PUBLICATION-DATE: January 29, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lee, Kuo Chu	Princeton Junction	NJ	US	
Yu, Juan	Cranbury	NJ	US	
Ozdemir, Hasan Timucin	Plainsboro	NJ	US	

APPL-NO: 10/ 205596 [PALM]
DATE FILED: July 25, 2002

INT-CL: [07] G06 F 15/16, G06 F 15/177

US-CL-PUBLISHED: 709/227; 709/220, 709/204
US-CL-CURRENT: 709/227; 709/204, 709/220

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A system and method provides protocol independent communication between mobile electronic devices. Multiple users may communicate using different applications running on different mobile electronic devices with different end-to-end protocols. A multimedia controller in connection with control agents provides the information to establish communications between mobile electronic devices having applications with incompatible communication protocols. A session and routing controller controls communication sessions and a Web hyperlink dictionary provides information regarding the location of the multimedia controller and control agents.

Previous Doc Next Doc Go to Doc#

10/024734

Freeform Search

Database: US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: ('5351290'| '5418844'| '5473630'| '5448632'| '5425090'| '5402474'| '5365580'| '5452350'| '5353335'| '5450479'| '5148474'| '5287403'| '5222120'| '51950

Display: 10 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search Clear Interrupt

Search History

DATE: Friday, July 15, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L37	('5351290'| '5418844'| '5473630'| '5448632'| '5425090'| '5402474'| '5365580'| '5452350'| '5353335'| '5450479'| '5148474'| '5287403'| '5222120'| '5195086'| '5187710'| '5185785'| '5259023'| '5311572'| '5210789'| '5276866'| '5068891'| '5111306'| '5051734'| '5049886'| '5006936'| '5126747'| '4899220'| '4893330'| '5003584'| '5036326'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5867566'| '5854833'| '5873099'| '5917912'| '5953389'| '5799156'| '5949876'| '5915019'| '5892900'| '5910987'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786')[URPN] and ((record$ or log$) same ((bill$ or charg$) with (time or duration or period))) and ((unrelat$ or different) near2 (relat$ or host$)) and l7	12	L37
	DB=PGPB,USPT,USOC; THES=ASSIGNEE; PLUR=YES; OP=OR		

reviewed

('5351290'| '5418844'| '5473630'| '5448632'| '5425090'| '5402474'| '5365580'| '5452350'| '5353335'| '5450479'| '5148474'| '5287403'| '5222120'| '5195086'| '5187710'| '5185785'| '5259023'| '5311572'| '5210789'| '5276866'| '5068891'| '5111306'| '5051734'| '5049886'| '5006936'| '5126747'| '4899220'| '4893330'| '5003584'| '5036326'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'|

L36 '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5867566'| '5854833'| '5873099'| '5917912'| '5953389'| '5799156'| '5949876'| '5915019'| '5892900'| '5910987'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786')[URPN] and ((record$ or log$) same ((bill$ or charg$) with (time or duration or period))) and ((unrelat$ or different) near2 (relat$ or host$))

DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

('5351290'| '5418844'| '5473630'| '5448632'| '5425090'| '5402474'| '5365580'| '5452350'| '5353335'| '5450479'| '5148474'| '5287403'| '5222120'| '5195086'| '5187710'| '5185785'| '5259023'| '5311572'| '5210789'| '5276866'| '5068891'| '5111306'| '5051734'| '5049886'| '5006936'| '5126747'| '4899220'| '4893330'| '5003584'| '5036326'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'|

L35 '5910987'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004'| '5867566'| '5854833'| '5873099'| '5917912'| '5953389'| '5799156'| '5949876'| '5915019'| '5892900'| '5910987'| '6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786')[URPN] — 2211 L35

(5148474 | 4608460 | 5259023 | 5006936 | 5287403 | 4625081 | 4313035 | 4232199 | 5418844 | 4341929 | 5452350 | 5276866 | 5049886 | 5126747 | 4845501 | 4868653 | 4833475 | 4172386 | 5473630 | 4313188 | 4568941 | 5351290 | 5450479 | 3556530 | 4577061 | 5068891 | 5210789 | 4236221 | 4310727 | 4204433 | 4688203 | 2072527 | 2540105 | 4054756 | 4023185 | 4577062 | 4611096 |

L34 4164025 | 4315269 | 4275425 | 5353335 | 5402474 | 5222120 | 5185785 | 3810174 | 3928724 | 5051734 | 4232376 | 5448632 | 5003584 | 4161752 | 4139739 | 4782519 | 4754279 | 5036326 | 4378571 | 3999008 | 5425090 | 5187710 | 4899220 | 4791640 | 4685127 | 5365580 | 5111306 | 4178476 | 4706275 | 4128838 | 4893330 | 4097895 | 4463380 | 3614328 | 3964064 | 5195086 | 2588680 | 5311572 | 4118734 | 4745475 | 4837579)[PN] — 78 L34

L33 ('5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004')[PN] — 7 L33

(5606609 | 5201046 | 4823264 | 4595950 | 5365587 | 4305131 | 4558176 | 4625081 | 5592549 | 4253157 | 5592530 | 5301231 | 5539735 | 5438508 | 4796181 | 4972453 | 5563930 | 5509060 | 5416833 | 4236217 | 5311591 | 4670857 | 5185717 | 5103392 | 4588991 | 5557518 | 5224160 | 5048085 | 4375579 | 4696034

	| 5475732 | 5623405 | 5793839 | 5343527 | 4924378 | 5689587 | 5222120 | 5319785 | 5504757 | 5128525 | 5568552 | 5001752 | 4991105 | 5455861 | 5155680 | 4747139 | 5504818 | 4577289 | 5765152 | 5319705 | 4553252 | 5373561 | 4458315 | 4270182 | 3796830 | 5146575 | 5449896 | 5023907 | 5388189 | 5473687 | 5754849 | 5241588 | 5457746 | 5119493 | 5539828 | 4652990 | 5195086 | 5802145 | 3924065 | 5687212 | 3609697 | 5768426 | 5086461 | 5504837 | 4949187 | 4688169 | 4471163 | 5638443 | 3573747 | 5163091 | 5453601 | 5563946 | 4903296 | 5005122 | 5629980 | 5265164 | 5444779 | 5410598 | 4232317 | 4562495 | 5528677 | 4361877 | 4434464 | 5687236 | 5221833 | 4309569 | 5355474 | 3911397 | 4868758 | 5854835 | 5727154 | 5195124 | 5347564 | 4768087 | 4864494 | 5422953 | 4446519 | 4584641 | 5390330 | 5534975 | 5444713 | 4306289 |		
L32	5067099 | 5453605 | 5201047 | 5392328 | 4672572 | 6233313 | 5508913 | 5010571 | 5481312 | 4574167 | 5404389 | 5455407 | 5600643 | 5633932 | 4930073 | 5572583 | 4484217 | 4048619 | 5881132 | 4799156 | 5751799 | 5280479 | 5208748 | 4868877 | 5790633 | 4706275 | 4922514 | 5436957 | 5392345 | 3806882 | 4337483 | 5497491 | 5148481 | 5530235 | 5263158 | 4658093 | 3931504 | 5809120 | 4589064 | 4634807 | 5343461 | 5457736 | 4644493 | 4071911 | 5613004 | 4200913 | 4262329 | 5285494 | 4807288 | 3958081 | 5553282 | 4513174 | 5715294 | 4323921 | 5479509 | 5528678 | 5621797 | 4232199 | 5103476 | 5452350 | 5375159 | 5337360 | 5428606 | 4112421 | 4593376 | 5278829 | 5465294 | 4168396 | 4558413 | 5260999 | 5491742 | 4740890 | 5757914 | 6097798 | 5136716 | 3970992 | 4701846 | 5634012 | 5247571 | 5054050 | 4433207 | 5655077 | 5710834 | 5694459 | 4265371 | 5999604 | 5442645 | 4217588 | 5748763)![PN]	201	L32
L31	('6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004')[PN]	27	L31
L30	L28 and ((record$ or log$) same ((bill$ or charg$) with (time or duration or period))) and ((unrelat$ or different) near2 (relat$ or host$))	2	L30
L29	L28 and ((record$ or log$) same ((bill$ or charg$) with (time or duration or period)))	2	L29
L28	5953389.pn. or 5873099.pn.	2	L28
L27	('6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004')[URPN] and 15	2	L27
L26	('6279038'| '5917912'| '6504907'| '5953389'| '5982891'| '5949876'| '6338046'| '6016343'| '5915019'| '6237786'| '5867566'| '5854833'| '5873099'| '5790634'| '5687212'| '5799156'| '5790633'| '5892900'| '5638430'| '5910987'| '5590181'| '5502576'| '5586175'| '5615251'| '5633919'| '4757267'| '4776004')[URPN]	984	L26
L25	L24 or l10 or l16 or l19	27	L25
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L24	6338046.pn. or 4776004.pn.	2	L24
	DB=PGPB,USPT,USOC; THES=ASSIGNEE; PLUR=YES; OP=OR		
L23	709/223,225,227.ccls.	7802	L23
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
	(3928724 | 5051734 | 4608460 | 5006936 | 4232376 | 4161752 | 4313035 | 4139739 | 4341929 | 5276866 | 5036326 | 4754279 | 5049886 | 5126747 | 4845501		

	| 4378571 | 3999008 | 4868653 | 4899220 | 4833475 | 4172386 | 4313188 | 5111306 | 4178476 | 4128838 | 4568941 | 3556530 | 4097895 | 4463380 | 4236221		
L22	| 4310727 | 3614328 | 4204433 | 2072527 | 4688203 | 3964064 | 2540105 | 4023185 | 2588680 | 4577062 | 4118734 | 4164025 | 4315269 | 4275425 | 4745475 | 4837579 | 3810174)![PN] and L3	0	L22
	DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
	(3928724 | 5051734 | 4608460 | 5006936 | 4232376 | 4161752 | 4313035 | 4139739 | 4341929 | 5276866 | 5036326 | 4754279 | 5049886 | 5126747 | 4845501 | 4378571 | 3999008 | 4868653 | 4899220 | 4833475 | 4172386 | 4313188 |		
L21	5111306 | 4178476 | 4128838 | 4568941 | 3556530 | 4097895 | 4463380 | 4236221 | 4310727 | 3614328 | 4204433 | 2072527 | 4688203 | 3964064 | 2540105 | 4023185 | 2588680 | 4577062 | 4118734 | 4164025 | 4315269 | 4275425 | 4745475 | 4837579 | 3810174)![PN] and L4	0	L21
	(3928724 | 5051734 | 4608460 | 5006936 | 4232376 | 4161752 | 4313035 | 4139739 | 4341929 | 5276866 | 5036326 | 4754279 | 5049886 | 5126747 | 4845501 | 4378571 | 3999008 | 4868653 | 4899220 | 4833475 | 4172386 | 4313188 |		
L20	5111306 | 4178476 | 4128838 | 4568941 | 3556530 | 4097895 | 4463380 | 4236221 | 4310727 | 3614328 | 4204433 | 2072527 | 4688203 | 3964064 | 2540105 | 4023185 | 2588680 | 4577062 | 4118734 | 4164025 | 4315269 | 4275425 | 4745475 | 4837579 | 3810174)![PN]	47	L20
L19	('4757267'| '5502576')[PN]	2	L19
	(5606609 | 5201046 | 4823264 | 4595950 | 5365587 | 4305131 | 4558176 | 5649089 | 5592549 | 4625081 | 5555290 | 4253157 | 5379418 | 5301231 | 5539735 | 5438508 | 4796181 | 4972453 | 5509060 | 5416833 | 4236217 | 5311591 | 4670857 | 5185717 | 5103392 | 4588991 | 4622222 | 5557518 | 5224160 | 5048085 | 4375579 | 4696034 | 5343527 | 4924378 | 5689587 | 5222120 | 4882475 | 5504757 | 5128525 | 5568552 | 5001752 | 4991105 | 5455861 | 5155680 | 4747139 | 5003584 | 5504818 | 4577289 | 5765152 | 5319705 | 4553252 | 3568156 | 5373561 | 4458315 | 3796830 | 4270182 | 5146575 | 5449896 | 5023907 | 5388189 | 5473687 | 5754849 | 4432057 | 5457746 | 5119493 | 5615364 | 5539828 | 4652990 | 3924065 | 5195086 | 3609697 | 5768426 | 5086461 | 5504837 | 4949187 | 4688169 | 5606602 | 4471163 | 5638443 | 5579379 | 4798209 | 3573747 | 5453601 | 5563946 | 4903296 | 5005122 | 5629980 | 4853843 | 5265164 | 5444779 | 5410598 | 4232317 | 4562495 | 5528677 | 4361877 | 4434464 | 5687236 |		
L18	5221833 | 4309569 | 5355474 | 3911397 | 4757553 | 5195124 | 5347564 | 4768087 | 4757267 | 5506897 | 4864494 | 5227797 | 5422953 | 4446519 | 4584641 | 5390330 | 5534975 | 4306289 | 5067099 | 5185785 | 5478960 | 5453605 | 5201047 | 5392328 | 4672572 | 5508913 | 5010571 | 4574167 | 5404389 | 5455407 | 5633932 | 4930073 | 4484217 | 4048619 | 4799156 | 5280479 | 5208748 | 4868877 | 5136636 | 5440727 | 5790633 | 4706275 | 5638430 | 4922514 | 5392345 | 5436957 | 3806882 | 4337483 | 5497491 | 5148481 | 5530235 | 5263158 | 4658093 | 3931504 | 4589064 | 5311572 | 4634807 | 5343461 | 5457736 | 4644493 | 4071911 | 5613004 | 4262329 | 4200913 | 5285494 | 4807288 | 3958081 | 5553282 | 4513174 | 4323921 | 5479509 | 5528678 | 5621797 | 4232199 | 5103476 | 5452350 | 5375159 | 5337360 | 5428606 | 4112421 | 4593376 | 5465294 | 4168396 | 5341414 | 4558413 | 5260999 | 5473630 | 5491742 | 4740890 | 5757914 | 5136716 | 3970992 | 4701846 | 5634012 | 5247571 | 5054050 | 4433207 | 5655077 | 4265371 | 5710834 | 5442645 | 4217588 | 4278837 | 5748763)![PN]	201	L18

('5867566'\| '5873099'\| '5917912'\| '5953389'\| '5982891'\| '5949876'\| '6016343'\|

L17	'5915019'| '5892900'| '5910987'| '5854833'| '5590181'| '5790634'| '5687212'| '5799156'| '5790633'| '5586175'| '5615251'| '5633919'| '5638430'| '4757267'| '5502576')[PN]	22	L17
L16	L6 and ((modif$ or revis$ or updat$) near3 database)	22	L16
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L15	L14 and (bill$ or charg$)	1	L15
L14	6504907.pn.	1	L14
L13	L12 and L11	1	L13
L12	L10 and ((unrelat$ or different) near3 (computer4 or network$))	1	L12
L11	L10 and ((unrelat$ or different) near3 network$)	1	L11
L10	('5873099'| '5917912'| '5953389'| '5982891'| '5949876'| '6016343'| '5915019'| '6308328'| '5892900'| '5910987'| '5867566'| '5854833'| '5590181'| '5790634'| '5687212'| '5799156'| '5790633'| '5615251'| '5633919'| '5638430'| '5586175'| '4757267'| '5502576')[URPN] and L4	5	L10
L9	('5873099'| '5917912'| '5953389'| '5982891'| '5949876'| '6016343'| '5915019'| '6308328'| '5892900'| '5910987'| '5867566'| '5854833'| '5590181'| '5790634'| '5687212'| '5799156'| '5790633'| '5615251'| '5633919'| '5638430'| '5586175'| '4757267'| '5502576')[URPN] and L2	77	L9
	DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L8	('5873099'| '5917912'| '5953389'| '5982891'| '5949876'| '6016343'| '5915019'| '6308328'| '5892900'| '5910987'| '5867566'| '5854833'| '5590181'| '5790634'| '5687212'| '5799156'| '5790633'| '5615251'| '5633919'| '5638430'| '5586175'| '4757267'| '5502576')[URPN]	978	L8
L7	L6 and (updat$ with database)	23	L7
L6	L5	48	L6
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L5	L4 and @ad<=19980116	48	L5
L4	L3 and (remote$ with computer$)	156	L4
L3	L2 and ((unrelat$ or different) near2 (relat$ or host$))	354	L3
L2	computer$ and ((record$ or log$) same ((bill$ or charg$) with (time or duration or period)))	8942	L2
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L1	6338046.pn. or 4776004.pn.	2	L1

END OF SEARCH HISTORY